Synopsis for Ph.D registration
On

Critical Evaluation of Internet Banking Services with reference to ICICI Bank and State Bank of India

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INTRODUCTION

The Banking sector of a country is the backbone of its economy. Indian banking sector since independence has witnessed tremendous transformation. Till 1990, the industry was largely controlled by the government and focused on furtherance of the welfare state ethos. The year 1991 brought about the regime of liberalization, privatization and globalization. Banking industry was catapulted into the forefront with sweeping changes that encouraged competition and resolved to bring it at par with the international standards of banking.

BANKING INDUSTRY IN INDIA: A BRIEF HISTORY

Pre-Independence Period (1786-1947)

Many major Indian banks failed to survive during the pre-independence period.[1] Their failure can be attributed to the following reasons:

- Indian account holders had become fraud-prone
- Lack of machines and technology
- Human errors & time-consuming
- Fewer facilities
- Lack of proper management skills

Post-Independence Period (1947-1991)

In 1947, all banks were privately owned, and most people were dependent on local moneylenders for financial assistance. The government decided to nationalize the Banks, under the Banking Regulation Act, 1949 in order to further the following reasons:

- Consolidation of funds to improve the economic condition of the country
- Increase in efficiency
- Boost the rural and agricultural sector of the country
- Open new avenues for employment of the people
- Profit earned by Banks were diverted towards the betterment the public
- Reduce competition to ensure increased work efficiency

Liberalization Period (1991-Till Date)

To Enhance profitability of the nationalized Public Sector Banks, a committee was set up under the leadership of Shri. M Narasimham to reform the Indian banking industry. The

[1] https://www.researchgate.net/search Deepa Kamra_
Digitisation of banks in india and Its socio-economic impact- A study of selected banks_Meerut_2022, P2

introduction of Private sector banks in India was the first significant step towards opening up the banking industry, other measures taken included:

• Setting up of branches of the various foreign banks in India.

• Nationalization of Banks was abolished.

• Parity between public and private sector banks in all spheres of operations.

• Foreign Banks could start joint ventures with Indian Banks.

• NBFCs were allowed to set up their branches across India.

• Digitization of Indian banking system facilitating electronic fund transfer.

Internet Banking

Internet banking, also known as online banking or E-Banking or Net Banking is a facility offered by banks and financial institutions that allow customers to use Banking services over the internet.[2] Customers need not visit their bank's branch office to avail each and every small service. Not all account holders get access to internet banking. If you would like to use internet banking services, you must register for the facility while opening the account or later. You have to use the registered customer ID and password to log into your Internet Banking account.

India and the government of India have taken various initiatives for the expansion and smooth functioning of Electronic Banking in India.[3]

- From 1980 to the 1990s – The arrival of debit cards and credit card
- From 1984 to 1988 – Banks started using computers, and MICR cheques were introduced.
- In 1987 – HSBC was the first bank to introduce the ATM concept in India
- In 1990 – ECS payment was introduced in India by the RBI
- In 1991 – India joined Society for Worldwide Interbank Financial Telecommunication.
- In 1997 – A shared payment network system was set up
- In 1999 – A pilot project for Smart cards was conducted jointly by the Reserve bank of India, IIT (Mumbai), and IDRBT, Hyderabad
- In 2000 – the Information Technology act was passed,
- In 2002 – mobile banking was started in India by way of SMS banking
- In 2003 – The introduction of Special Electronic fund transfer

[2] https://www.google.com

[3] https://cleartax.in/s/net-banking 26 May 2023
https://journals.sagepub.com/doi/10.1177

- In 2004 – The introduction of Real-time gross settlement
- In 2005 – overall, 11 Percent of branches of Public sector banks had been brought under Core banking solutions and the introduction of national electronic funds transfer.
- In 2007 – the payment and settlement system act 2007 was passed
- In 2008 – The introduction of a Cheque truncation system and operative guidelines on mobile banking transactions were issued.
- In 2009 – Free cash withdrawal from ATMs.
- In 2010 – The introduction of an Immediate payment service
- In 2016- the Bharat bill payment system & Unified Payments Interface were started in banks across the country that started to upload their interface in August 2016.
- In 2016 – Bharat Interface for Money (BHIM), a mobile app developed by the National Payments Corporation of India (NPCI), based on the Unified Payment Interface (UPI).

State Bank of India

State Bank of India (SBI) is an Indian multinational Public sector Banking and Financial services. An act was accordingly passed in Parliament in May 1955 and the State Bank of India was constituted on 1st July 1955. More than a quarter of the resources of the Indian Banking system thus passed under the direct control of the State. It is head quartered in Mumbai. SBI[4] is the largest Public bank in India which serves over 44 crore customers of our nation. It provides a range of personal banking, corporate banking investment, government banking, SME banking, and rural banking services to individual, corporate, government, and institutional clients. The State Bank of India Digital Transformation Strategies report will act as a reference point to understand a company/competitor's digital strategy. It will also help in understanding the digital preparedness of the company against its peers. Information included in these reports are sourced from a mix of our very own internal database and authentic secondary research links such as company's annual report, presentations, press releases etc. The report covers overview of the company, its digital transformation strategies, technology focus areas, technology initiatives, technology introductions, investments, ICT spending among others.

Digital Transformation Strategies

SBI has been actively leveraging the capabilities of artificial intelligence to digitally transform its banking operations. For instance, the bank launched video Know Your

[4] https://en.wikipedia.og/wiki/state_Bank_of_India

Customer based savings account opening via its YONO mobile banking app. The feature uses AI and facial recognition technologies to allow customers to open a digital savings account through the app AI based tools also enable the bank to identify branches that are prone to fraud and suspicious chargeback complaints.

State Bank of India is utilizing number of emerging technologies including artificial intelligence, big data, and blockchain to enhance its operational and service capabilities. The annual report pointed out that as on 31 March, Yono has seen 111.74 million downloads, opened 26,000 digital savings bank accounts per day and has 48.35 million registered users. During the year, SBI said it opened 9.9 million savings bank accounts.[5]

Other online services provided by SBI:

- **Digital lending:**
  - i) YONO SBI app
  - i) YONO Business SBI app
  - ii) Internet banking Platform
- **Internet banking:**
  - i) Funds transfer between own accounts.
  - ii) Third party transfers to accounts maintained at any branch of SBI
  - iii) Inter Bank Transfers to accounts with other Banks
  - iv) Online standing instructions for periodical transfer for the above
  - v) Credit PPF accounts across branches
  - vi) Request for Issue of Demand Draft
  - vii) Request for opening of new accounts
  - viii) Request for closure of Loan Accounts
  - ix) Request for Issue of Cheque Book
  - x) Earn reward points for transactions through Internet Banking

- **BHIM SBI pay**
- **SBI ePay**
- **Mobile banking**
- **WhatsApp Banking**
- **Cyber Security**

[5] https://sbi.co.inweb/personal-banking/digital

Data Analysis & Interpretation

Table 1: Gender of Respondents

Gender	No. of Respondents	Percentage
Male	36	76
Female	14	24
Total	**50**	**100**

Table 2: Age Group of Respondents

Age	No. of Respondents	Percentage
18-25	31	62
25-35	13	26
35-45	3	6
Above 45	3	6
Total	**50**	**100**

Table 3: Educational Level of Respondents

Educational Level	No. of Respondents	Percentage
SSLC	6	12
PUC	4	8
Under-graduation	25	50
Post-Graduation	15	30
Total	**50**	**100**

Table: 4. Respondents Have Type of Account in SBI Bank

Types of Account	No. of Respondents	Percentage
Saving Account	38	76
Current Account	3	6
FD Account	6	12
RD Account	3	6
Total	**50**	**100**

Table 5: Respondents Know about E- Banking Services

Know about E-Banking Services	No. of Respondents	Percentage
Yes	38	76
No	12	24
Total	**50**	**100**

Table 6: Respondents are aware about E-Banking services while opening the account

Aware about E-Banking Services	No. of Respondents	Percentage
Yes	35	70
No	15	30
Total	**50**	**100**

Table 7: Respondents are Know about E-Banking services

Particulars	No. of Respondents	Percentage
ATM/Debit Card	30	60
Credit Card	2	4
Internet Banking	10	10
Mobile Banking	8	16
Total	**50**	**100**

Table 8: Respondents Opinion About Benefits of E-Banking Services

Factors	No. of Respondents	Percentage
Time saving	14	28
Inexpensive	11	22
Easy Processing	20	40
Easy Fund Transfer	5	10
Total	**50**	**100**

Table 9: Respondents Are Extent Satisfied with E-Banking Services

Factors	No. of Respondents	Percentage
Highly Satisfied	10	20
Satisfied	35	70

Dissatisfied	4	8
Highly Dissatisfied	1	2
Total	**50**	**100**

Source: Sandhya S, IJRAR, "A STUDY ON SBI CUSTOMERS' SATISFACTION TOWARDS E- BANKING SERVICES", Volume 8, Issue 2, Mysuru, Karnataka, May 2021,p728-731

Industrial Credit and Investment Corporation of India

ICICI Bank Limited is an Indian multinational bank and financial services company headquartered in Mumbai with registered office in Vadodara. ICICI Bank was incorporated in 1994 as a part of the ICICI group. It offers a wide range of banking and financial services for corporate and retail customers through a variety of delivery channels and specialized subsidiaries in the areas of investment banking, life, non-life insurance, venture capital and asset management. This development finance institution, ICICI[6] has a network of 5,900 branches and 16,650 ATMs across India and has a presence in 17 countries. The bank has subsidiaries in the United Kingdom and Canada; branches in United States, Singapore, Bahrain, Hong Kong, Qatar, Oman, Dubai International Finance Centre, China and South Africa; as well as representative offices in United Arab Emirates, Bangladesh, Malaysia and Indonesia. The company's UK subsidiary has also established branches in Belgium and Germany

The bank offers more than 20 industry-specific digital solutions that are tailored to the needs of corporate clients. This includes digital banking solutions[7], channel partners, dealers, vendors, employees; and curated services for promoters and the senior management. It also offers 360-degree coverage for corporations by offering solutions like supply chain management, export-related requirements, treasury management, etc.

Digital services of ICICI Bank:

- Add Funds from other banks using UPI
- Balance details of all Bank Accounts
- Account details of all Bank Accounts
- View Mini Statement
- View Detailed Statement List and Calendar View (Download PDF and CSV)

[6] About us"ICICI.com (https://www.icici.com/aboutus/about-us.html)
[7] https://www.icicibank.com/campaign/mailers/digital-banking-services

- E-statements: Bank Accounts, Credit Card, Demat and PPF (Download PDF and CSV)
- E-statements over E-mail
- Reward Points
- Account Summary
- Enroll for National Pension System
- Enroll for Corporate NPS
- UPI Pull Funds
- Virtual Debit Card
- 350+ services for your Savings Account, Debit/Credit Cards, Deposits, Mutual Funds/SIPs, Loans and much more, with Internet Banking and Mobile Pay.

Data Analysis & Interpretation

Table 1: Gender of Respondents

Gender	No. of Respondents	Percentage
Male	74	62
Female	46	38
Total	**120**	**100**

Table 2: Educational Level of Respondents

Educational Qualification	No. of Respondents	Percentage
Illiterate	17	14
Up to School level	20	17
Graduate	47	39
Post—Graduate	16	13
Professional	20	17
Total	**120**	**100**

Table 3: The Occupational Status Of The Respondents

Occupation	No. of Respondents	Percentage
Employee	11	9
Employer	39	33
Professional's	60	50

Other's	10	8
Total	**120**	**100**

Table 4: The Satisfaction Level of Respondents

Level of Satisfaction	No. of Respondents	Percentage
Highly Satisfied	27	23
Satisfied	47	39
Neutral	32	27
Dissatisfied	12	9
Highly Dissatisfied	2	2
Total	**120**	**100**

Source: Mr. P.Kanagaraj & Hariharan.S-A Study on Customer satisfaction on ICICI Bank_EPRA International Journal of Research & Development (IJRT) volume:5 Issue:11, November 2020, P309-311

Review of Literature

1. **Sayyed Shahab Husain "Critical study of Internet Banking in India" (2019)[8]** Studied and concluded that, by 2023, the e-commerce sector, previously estimated at $16 billion in 2013, is projected to expand by $56 billion. In the background of India, there is a rising step in the idea of Internet banking. Banks in India have made genuine attempts to implement facilities focused on IT. But there is still a broad scope for people to make Internet banking appropriate. Online banking has gained prominence among the millennial generation since they have understood and are making widespread use of the advantages of internet banking. Online banking would be the perfect form of banking in the years to come.

2. **Shameel K. "A Critical evaluation on Banking reforms in India in terms of e-Banking" (2020)[9]** studied and concluded that, it is imperative for banks to ensure that their banking transactions are safe and secure. The point of concern in this regard is that fraudsters had to come to India for the recent ATM robbery, but they may not have to come here for any such attempt if they could make for internet or mobile banking. Based on this

[8] https://ignited.in/1/a/303925_Sayyed Shahab Husain*, in Journal of Advances and Scholarly Researches in Allied Education | Multidisciplinary Academic Research-Ignited Minds Journals-May, 2019

[9] https://www.jetir.org Shameel K-A critical evaluation on banking reforms in India in terms of e-banking-JETIR August 2020, Volume 7, Issue 8

exploratory evaluation, this paper recommends further studies in the field of security of transactions in online and mobile banking services. It is very important to investigate whether people ever suffered from any security related risks, and if so, what measures their banks have taken to avoid such risks. RBI has made 'two-factor authentication' compulsory for online banking transactions in order to ensure the safety of online banking transactions. However, it is recommended that further study is required to investigate how much safe are online banking transactions when 'two-factor authentication' is implemented.

3. **Online Baijnath[10] "Critical evaluation of E-Banking in HP Shikha group"** studied and concluded that the awareness of e-banking services, its adoption and usage rate has increased eith time but still many people are unaware and many of them are non users.
   The customers of both SBI & ICICI bank are aware about the various e-banking services provided by the bank but customers not opting for e-banking services had security concerns. Therefore, there should be initiatives on the point of the banks to remove the security risk & improve the services.

4. **A.Sunitha "E-banking in India - A Critical Review on E-Banking Services" (2017)[11]** studied and concluded that, E-banking is a borderless entity permitting anytime, anywhere and anyhow banking. This facilitates us with all the functions and many advantages as compared to traditional banking services. During this step of the process, controls that could mitigate or eliminate the identified risks, as appropriate to the organizations operations, are provided. The goal of the recommended controls is to reduce the level of risk to the IT system and its data to an acceptable level.

5. **Modi, et al., "A critical analysis of e-Banking frauds and laws in India" (2021)[12]** studied and concluded that, Online transactions are simple, convenient, and money-saving. These features make it more popular for individuals to engage in digital fraud. It may be deduced by interrogating persons of all ages that con artists are constantly looking for

[10] https://www.academia.edu Online Baijnath (2013). Critical evaluation of E-banking in HP Shiksha group-himachal Pradesh university, p62-63
[11] https://www.doi.org/10.53730 A.SUNITHA-ANVESHANA'S INTERNATIONAL JOURNAL OF RESEARCH IN REGIONAL STUDIES LAW,SOCIAL SCIENCE,JOURNALISM AND MANAGEMENT PRACTICES, volume 2, issue 4 (2017, April) p63
[12] Modi, S., Premani, V., & Kaur, M. (2021). A critical analysis of e-banking frauds and laws in India. International Journal of Health Sciences,5(S2), 931–938, Punjab-p938

ways to take people's money. Netizens need to handle their personal data with care and be extra vigilant about their technological rights. Though there are some laws to deal with e-Banking frauds, those laws are not so effective. There is need for a strong and specific legislation, which may particularly deal with e-Banking frauds. Information Technology Act, 2000 may be applied only with the Indian Penal Code, to carry on the proceeding in case of e-banking frauds. Indian Penal Code does not define the word 'fraud', nor it deals with digital financial frauds. So, making of specific and independent legislation is direly needed to deal with the problem effectively. The Reserve Bank of India also makes the study time-to-time and makes recommendations.

6. **Sindhu Singh "Measuring E-Service Quality and Customer Satisfaction with Internet Banking in India" (2019)**[13] studied and concluded that, The study found a three-factor solution to the e-service quality of internet banking. The results suggest that responsiveness, efficiency and perceived credibility significantly influenced overall service quality. The most significant predictor identified is responsiveness. The study also established a positive relationship between e-service quality dimensions and customer satisfaction. The findings provide practical information useful for improving the service quality of internet banking. Commercial banks and financial institution should implement best practices in the industry in order to strengthen customers' confidence in using internet banking services. Limitation is that there is a possibility that it has not captured all e-service quality dimensions.

Statement of the problem:

The main problem associated with E-Banking services are the security concern faced by both the Bank and their customers. The security concern like TROJAN, MALWARE, PHISING & HACKING etc. lead to hindrance in development of E-Banking services. The problem also concerns about checking the satisfaction level of E-Banking customers at SBI & ICICI Bank.

[13] Theoretical Economics letters, Vol.9No.2,2019 Sindhu Singh January 2019 Theoretical Economics Letters 09(02):308-326 DOI:10.4236/tel.2019.92023-p322

Scope of the Study:

This Study provides a guide to the current structure of the internet banking security and highlights awareness level of customers for using Internet banking, and their perception and satisfaction towards Internet Banking with new technologies and its functioning. This helps to know in details about development in banking industry with advancement in technology. It also helps in understanding different services offered in Internet banking.

Objective:

1. To study the various E-Banking services provided by the Indian Banks to the customers.
2. To study the Customer's perception & awareness towards E-Banking security.
3. To analyze the importance of E-Banking services in the Bank transactions.
4. To analyze the problems faced by the customers of Public (SBI) & Private (ICICI) Bank in using E-Banking services.
5. To build up various solutions for drawbacks in Internet Banking security.

Hypothesis:

The following statement of hypothesis (Null) has derived in the research plan

- $H_0$1: The Penetration of Internet Banking Services in ICICI Bank is more than SBI.
- $H_0$2: Measures taken by Government to protect E-Banking Frauds are not sufficient.

Research Design & Methodology

Research Design

A descriptive study was undertaken in order to know the critical evaluation of Internet Banking Services with reference to ICICI Bank and SBI Bank.

Research Methodology:

Research Methodology is a way of systematically solving the Research problem. Research Methodology deals with the Research Design used and Methods used to present the study. The present study is concern with the Internet Banking Services of ICICI and SBI Bank.

a).Data Collection:

Types and sources of Data:

The study will be based on both Primary and Secondary Data.

1. **Primary Data**: - The Primary Data will be collected from Survey, Interview, Questionnaire, etc.
2. **Secondary Data**: - The Secondary Data will be collected from Books, Journals, Reports, Published Document, Articles, etc.

Sampling

The selection criteria were based upon the Data availability, convenience and the level of participation. Hence, the researcher choose convenience and purposive sampling for this study among the various sampling methods.

Sampling Unit and there will be appropriate sample size in both Banking sector.

Sample Size:-

The sample of the present study consists of 250. The respondents will be segregated on the basis of different variables such as income, age, occupation, marital status, family size, academic qualification and annual savings.

b). Data analysis: -

The present study will use various tools of analysis depending upon the need and suitability of the data available to analyze and study the critical evaluation of Internet Banking Services with reference to ICICI Bank and SBI Bank.

c). Data Interpretation:-

For Data Interpretation some manageable groups and tables will be organized and such data will be classified into relevant and objective categories for better understanding and visualizing, data tables, charts, and graphs, etc will be used.

LIMITATIONS OF THE STUDY:

- The study considers two types of Banking Sector, i.e. Private and Public Sector.
- The Study mainly related to Internet Banking Sevices.
- The appropriate sample size will be used for both banking sector.

TENTATIVE CHAPTERISATION

Chapter I	:	Introduction and Review of Literature.
Chapter II	:	Internet Services in Banking Sector.
Chapter III	:	Internet Banking Strategies adopted by SBI & ICICI Bank.
Chapter IV	:	Comparative Study of SBI & ICICI Banking E-services.
Chapter V	:	Data analyses & Hypothesis Testing.
Chapter VI	:	Conclusion findings and Recommendations.

Supervisor **Research Scholar**

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